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ABSTRACT

Aggression is examined in this paper in conjunction with other social motivational behaviors (e.g., Altruism, cooperation/competition). Its purpose is to illustrate the usefulness of an integrative approach to aggression research. Such an approach appears to be reasonable and potentially productive, since many of the same independent variables examined by aggression researchers have been studied by workers in the other areas. Most of these variables can be categorized generally as instigators or inhibitors of socially motivated behavior. This has been the traditional approach for aggression but not for the other forms of social motivation. This paper includes a review of the major theories of aggression in terms of social motivation. The conclusion is the presentation of a new paradigm which places aggression in a social motivational context. This paradigm centers on the use of extended motive models of measuring social motivation and the concept of social control. (Author)

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HUMAN AGGRESSION IN A SOCIAL MOTIVATIONAL CONTEXT: AN INTEGRATIVE APPROACH

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Abstract

Aggression is examined in this paper in conjunction with other social motivational behaviors (e.g., altruism, cooperation/competition). Its purpose is to illustrate the usefulness of an integrative approach to aggression research. Such an approach appears to be reasonable and potentially productive, since many of the same independent variables examined by aggression researchers have been studied by workers in the other areas. Most of these variables can be categorized generally as instigators or inhibitors of socially motivated behavior. This has been the traditional approach for aggression but not for the other forms of social motivation. This paper includes a review of the major theories of aggression in terms of social motivation. The conclusion is the presentation of a new paradigm which places aggression in a social motivational context. This paradigm centers on the use of extended motive models of measuring social motivation and the concept of social control.

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HUMAN AGGRESSION IN A SOCIAL MOTIVATIONAL CONTEXT: AN INTEGRATIVE APPROACH

Presented at APA, Washington, 1976

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The purpose of this paper is to demonstrate the relationship between aggression and other forms of social motivation. We will first show that the conceptual variable aggression is a form of social motivation and is similar, in many respects, to other social motives. Next, we will show that aggression, as it has commonly been operationalized in experiments, can be interpreted in mixed-motive game terms. Finally, we will offer an extension to Tedeschi, Brown, and Smith's (1974) reinterpretation of aggression as coercive power. The main tenet of this extension is that all forms of social motivation can be explained in terms of social control.

Aggression is often conceptually defined as an act whose goal is to injure and harm another person or persons (Severy, Brigham, and Schlenker, 1976). In order to be defined as a socially motivated behavior, aggression must meet two qualifications. First, it is necessary that the individual's behavior is a result of a preferred goal. In the case of aggression, this preferred goal is harm to the other(s). The second qualification is that this goal must be achievable only in a situation of social interdependence. Clearly, an aggressive goal cannot be fulfilled in the absence of a target for the aggression. Hence, aggression, as conceptually defined, fits well into a social motivational

CG 011 481

framework and can be redefined as behavior which is precipitated by the goal of minimizing another's outcome. Thus defined, it is comparable to other social motives such as cooperation (behavior which results from the goal of maximizing the joint outcomes of self and the other), competition (behavior which results from the goal of maximizing the positive difference between outcomes to self and those to other), individualism (behavior which results from the goal of maximizing outcomes to self without regard to the other's outcome), and altruism (behavior which results from the goal of maximizing other's outcome without regard to self's outcome).

Now let us turn from the conceptual arena to that of concrete operationalism. In almost all aggression and other social motivation research, subjects' goals are inferred from their behaviors toward another. This inference has been accomplished for cooperation, competition, and individualism through the use of mixed-motive games. (In these games, subjects make choices between alternatives whose outcomes are mutually interdependent. Figure 1 is an example of the kind of outcome matrix the subject is presented with. The numbers in the cells of the matrix represent the outcomes to the subject and to the other which will be attained as a result of the subject's and the other's choices. The outcomes are pre-arranged by the experimenters in a manner which allows the determination of the type of alternative the subjects most prefer.) The social motives are inferred from the most preferred alternatives. In recent years, the use of mixed-motive games has been extended to incorporate aggression as well as the above-mentioned social motives. For example, McClintock, Messick, Kuhlman, and Campos (1973) attempted to bring aggression into a mixed-motive game context. Through the use of mixed-motive games, subjects' choice behaviors were classified as cooperative, individualistic, competitive,

or aggressive. Aggression was defined as minimizing the other person's outcome. However, since no stimulus was present in the experiment to elicit aggression, the amount of aggressive responding was, as might be expected, negligible. In order to achieve the classification of choice behaviors into the four social motives listed above, it was necessary to increase the number of alternatives in the game matrices from two to three. However, a recent innovation in mixed-motive game technology has made possible the classification of choice behavior into a theoretically infinite (though not exhaustive) set of social motives. This technology was introduced by Griesinger and Livingston (1973) through their geometric model of social motivation. The model employs a series of computer-generated decomposed game matrices based upon the subject's previous choices. The matrices are composed of alternatives which become increasingly similar to those chosen on previous trials. Motives are inferred from the final set of alternatives, which have become identical to one another and which represent the subject's most preferred alternative. Aggression is specifically included as one of the social goals which subjects may attain with this model.

Although aggression has been operationalized occasionally through mixed-motive games and more often through various other means, the vast majority of aggression research has used a paradigm which was initiated with the development of the Buss aggression machine (Buss, 1961). Within this paradigm, the amount of aggression is operationally defined as the amount of painful electric shock (intensity and/or duration) that an individual believes s/he is delivering to another individual in the experiment. Subjects' aggressive intent is inferred from the amount of shock delivered to the other. In research utilizing this paradigm, there is always some stimulus (called an instigation) which

theoretically should lead to an aggressive response. Such instigations have unfortunately been absent in most experiments attempting to study aggression in the mixed-motive game context. Even though the relationship of the Buss paradigm to the mixed-motive game paradigm for the study of social motivation is not immediately obvious, there are numerous similarities between them. In both cases, the subject usually interacts with a stranger for a brief period of time, and both paradigms involve the exchange of behaviors. In the aggression experiment, the subject is confronted with an implicit outcome matrix consisting of negative outcomes for him/herself and for the other person. In fact, the outcome structure is usually identical to the mutual fate control described by Thibaut and Kelley (1959). For example, in an experiment conducted by Zillman, Katcher, and Milvavsky (1972), the subjects in the high instigation condition received nine shocks of varying intensity from a confederate of the experimenter, compared to only three shocks in the low instigation condition. These shocks were the means by which the confederate indicated his agreement or disagreement with an attitude scale filled out by the subject. The subject then received a second treatment followed by an opportunity to shock the confederate in a learning task. The matrix displayed in Figure 2 shows the outcome structure of the Zillman et al. experiment in terms of mean shock intensity. From the viewpoint of the subject in the experiment, the situation is one of mutual fate control. The other person (confederate) solely determines the intensity of the shocks to be administered to the subject, and the subject solely determines the intensity of shocks to be given to the other person. Aggression experiments involving the exchange of unlike behaviors (e.g., insult-shock) can also be fitted into such a matrix analysis.

As illustrated in the previous example, aggression research can be interpreted in

terms of a mixed-motive matrix with outcomes stated in terms of electric shock. However, few social psychologists would agree that the shock matrix represents the only outcomes of importance to the subject. In accordance with this, much aggression research has placed its attention on other forms of outcomes, as well as those discussed above. Non-shock-related outcomes previously studied include: impressions of individual observers (Borden, 1975) or groups of observers (Baron, 1971), potential ingroup censure (Donnerstein and Donnerstein, 1973), potential retaliation (Wilson and Rogers, 1975), deindividuation (Diener, 1976), approval (Fishman, 1965), and maintainance of sex role status (Silverman, 1971). None of these outcomes can be measured in terms of intensity of shock or choice preferences in mixed-motive games. Instead, their measurement relies on the very important social dimensions of the experimental situation. The only recent explicit inclusion of social outcomes in a model of aggressive behavior is Tedeschi, Smith, and Brown's (1974) coercive power model. The major assumption of this model is that an actor always behaves in a manner calculated to instrumentally attain planned outcomes.

Emphasis on the attainment of outcomes is the point which so clearly ties the coercive power model to the mixed-motive game paradigm for the study of social motivation, in which, as stated previously, social motives are inferred from preferred outcomes. However, though both emphasize outcomes, the types of outcomes from which goals are inferred are different. The coercive power model explicitly includes social outcomes and does not ignore the vital social dimensions of the experimental situation. Although mixed-motive game research has stressed the physical outcomes, the points accrued by the subject and the other from the games, it has paid little attention to the social outcomes to the subject and the other. This inattention may be the result of the difficulties

social motivation researchers have had in explaining choice behavior. Social motivation has been studied with mixed-motive games for over ten years. Nevertheless, a unified theory of social motivation has not been developed, even within the context of mixed-motive games. Since researchers have been unable to understand the phenomenon of social motivation, their hesitancy to incorporate social as well as physical dimensions may be understandable. However, it is our contention that, just as with Tedeschi, Smith, and Brown's coercive power model, social outcomes must be included in the study of social motivation, and that until they are, no theory will be able to adequately describe social motivation. We reason that in any situation involving two people, there are both physical and social outcomes, and that in order to explain behavior, it is necessary to take both into account. All mixed-motive game experiments involve at least two people (the subject and the experimenter); most involve three people (the subject, the experimenter, and the other). It will be impossible to correctly explain behaviors in these experiments in the absence of information about the social outcomes to self, other, and the experimenter.

Since the coercive power model includes social outcomes, it would be desirable to use it to explain the behaviors which imply other social motives in addition to aggression. However, it would be inappropriate to attempt to explain motives of altruism, cooperation, and individualism under the rubric of coercive power. The model which will be introduced later in this paper is an expansion of the coercive power model which can include a broad variety of social motives. Before describing this new model, we will first give a brief description of the Tedeschi, Smith, and Brown (1974) coercive power model. Basically, the model states that a person will exercise coercive power if s/he

has been unable to induce compliance to his/her wishes from a target person in some other manner. Classical aggression research was divided into four categories and then explained in coercive power terms. The four categories are: (a) negative reciprocity and equity, (b) arousal states and harm-doing, (c) instrumental uses of coercive power for purposes of social influence, and (d) modeling and imitation. The first category, negative reciprocity and equity, refers to behaviors that are of a defensive nature. They are reinterpreted in coercive power terms as retaliation and restoration of equity. The second category, arousal and harm-doing behavior, receives its title from arousal's apparent effect of increasing the degree of harm-doing behavior beyond the level appropriate to the degree of provocation. Thus, it is interpreted as primarily increasing the intensity of retaliatory behavior. Instrumental use of coercion for the purpose of social influence is the third category of behavior. It differs from the first two in that it is offensive rather than defensive. The coercive power model theorizes that coercive power will be utilized to achieve social influence when other modes are not likely to be successful. The fourth category is that of modeling and imitation. This behavior can be properly explained by the coercive power model only when it involves harm to another person. Since modeling research has not involved real harm to persons, it is uninterpretable in coercive power terms.

The basic assumption of our new model, called the social control model, is that persons in a social situation will strive to attain a specific degree of control of that situation. It is postulated that the desired degree of control will be determined by both personality variables and situational (physical and social) variables. The social control model can be presented graphically in factor analysis terms. (See Gorsuch, 1974, for

the mechanics of geometric representations of factor analysis models.) As shown in Figure 3, the model is composed of three interdependent (non-orthogonal) factors. The first factor can be labeled perceived social control for self, and represents the amount of control the subject feels s/he has in the specific social situation. The second factor is labeled perceived social control of the other, and represents the amount of social control the subject perceives the significant other to have over the subject. In experiments, this significant other is usually the target of aggression or the opponent in a mixed-motive game. The third factor represents the social control which observers are perceived by the subject to exert over him/her and is called the social control for others factor. As noted earlier, there is a large number of variables which are considered important to the social situation. For our purposes, these variables will be divided into three categories, although each variable may have important relationships (represented by the factor loadings) to more than one factor. The first category of variables which contribute to the social control factor structure is that of physical outcomes to self and other. All social motivational research has heretofore incorporated these variables in one form or another. They usually serve as the dependent variables in experiments (e.g., intensity of shock delivered by the subject to a target individual). The second category includes personality variables. These variables are postulated by the model to be major determinants of desired social control. Some personality variables which previous research has shown to be important for social motivation are need for approval (Fishman, 1965), authoritarianism (Kuhlman and Marshello, 1975), need for achievement (Wyer and Malinowski, 1972), sex role identification (McNeel, McClintock, and Nuttin, 1972), locus of control, and field dependence (Dengerink, O'Leary, and Kasner, 1975). A final category is that of

situational variables. These variables are also postulated, by virtue of their impact on the social outcomes of the situation, to be determinants of desired social control. This category includes observer's sex and values (Borden, 1975), presence of an aggressive model (Bandura, 1965), anonymity, group presence (Diener, 1976), sex of other (Wyer and Malinowski, 1972; Silverman, 1971), physiological arousal (Donnerstein and Donnerstein, 1975), threat of retaliation (Baron, 1974), and communication (Caldwell, 1975). As shown in Figure 4, variables from all three categories can load on any of the three factors. In simpler terms, this means that the effects of each variable can be important for perceived control for self, other, and observers simultaneously.

The relationship of the social control model to the coercive power model is straightforward. Coercive power is one means that persons may use to attain social control. Examination of the four categorizations of classical aggression research made by Tedeschi, Smith, and Brown (1974) reveals that the social control model interpretations of two of the categories are virtually identical to the coercive power model interpretations. Subjects who use coercive power to achieve negative reciprocity or restoration of equity are merely seeking to regain social control of the situation. If an attack is not retaliated by the target, not only is the probability of another attack greater, but the impression of the target to him/herself and observers will be lowered. Coercive power will be used in order to maintain a degree of control of potential future shock and of the impressions of the target on him/herself and others. In a like manner, the instrumental use of coercive power for purposes of social influence can be interpreted by either the coercive power model or the social control model. Persons in a social situation will use coercive power as an offensive strategy if they feel it will increase their control of the

social situation. This implies that coercive power will be a more effective means of obtaining social control when the social control for observers factor is low, since observers will be less likely to deliver social sanctions. The social control model interpretation of the effects of arousal on aggressive behavior differs from that of the coercive power model. Recent research has shown that aggression can be facilitated by a number of arousing stimuli (e.g., physical exercise (Zillman, Katcher, and Milvavsky, 1972), melodies (Konecni, 1975), and erotic pictures (Donnerstein and Donnerstein, 1975)). Another series of studies has shown that aggression is also facilitated through the depressant effects of alcohol (Taylor and Gammon, 1975). The important point that both of these variables have in common is that they lessen physiological control. Geen and O'Neal (1969) have shown that when subjects are able to control the duration of an arousing stimulus, arousal does not result in increased aggression. Persons should react to lessened self-control with the use of coercive power only if they perceive the loss of self-control to be the result of the social control for another factor. Konecni (1975) has shown that aggression results from arousal only when the cause for the arousal is misattributed as anger. The social control model interpretation for arousal effects is that arousal results in perceived loss of control, which is reacted to by an attempt to regain the control only when the arousal inducement is attributed to another social agent in the situation. The final category of classical aggression, that of modeling, was inexplicable using the coercive power model. One reason is that modeling situations have typically involved an interaction between the subject and observer rather than between the subject and the target of the aggression. Observers (or potential observers) of modeling are in control of social rewards and punishments to the modeler. Bandura (1965) has explained the sex differences observed in the

modeling of aggression as primarily a function of masculine role identification. Research has shown that girls are not reinforced for opposite-sex behavior and that peers reinforce mostly same-sex peers (Fagot and Patterson, 1969). Both of these findings imply that modeling of aggression would be more instrumental in attaining social control for boys than for girls. The social control model predicts that modeled aggression will occur when the subject will be able to attain desired social outcomes which are in control of the observers through modeling.

Social motives other than aggression may also be interpreted through the social control model. Indirect evidence for the importance of social control in a variety of situations is given by a recent experiment in which social control was manipulated (Schulz, 1976). Residents of a retirement home who were given control of visitation from college students increased in their physical status, psychological status, and activity level; a similar group who received the same number of visits continued in the gradual decline of these health indicators. If social control can exhibit such a powerful influence on these real-life variables, it should also affect social motives in experiments. Just as aggression can be used to obtain social control, so can behavior in mixed-motive games. The social motives which have typically been inferred from game behavior can be viewed as different methods of gaining social control. For example, when a subject in an experiment perceives his/her social outcomes to be inversely related to his/her opponent's physical outcomes, competition will result. If, however, the important social outcomes to the subject are in the control of the experimenter, individualism should be observed. This is the case if subjects have been instructed, as they usually are, to get as many points for themselves as they can. For a final example, consider the situation in which the most important

social outcomes for the subject are in the control of the other. In this case, the social control model would predict cooperation. Determination of exactly which goals are considered important and who is perceived as controlling them requires a much more detailed analysis of the experimental situation than space allows.

The above examples give only a brief idea of the explanation of the full range of social motivation through the social control model. As with aggression, it is important in the application of this model to include all the major physical, personality, and social determinants of behavior. It is inadequate to study isolated phenmena in strictly controlled but incomparable experiments. Without broadening our models and our research technologies, we will continue to fail in the search for a unified, integrated theory of social motivation.

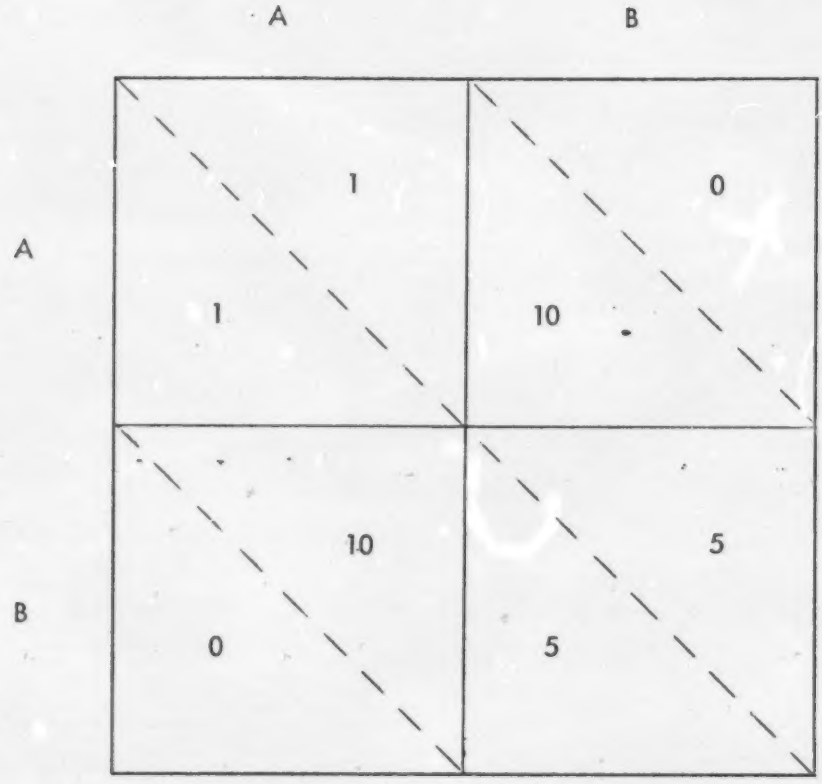

Figure 1. An example of a mixed-motive game matrix

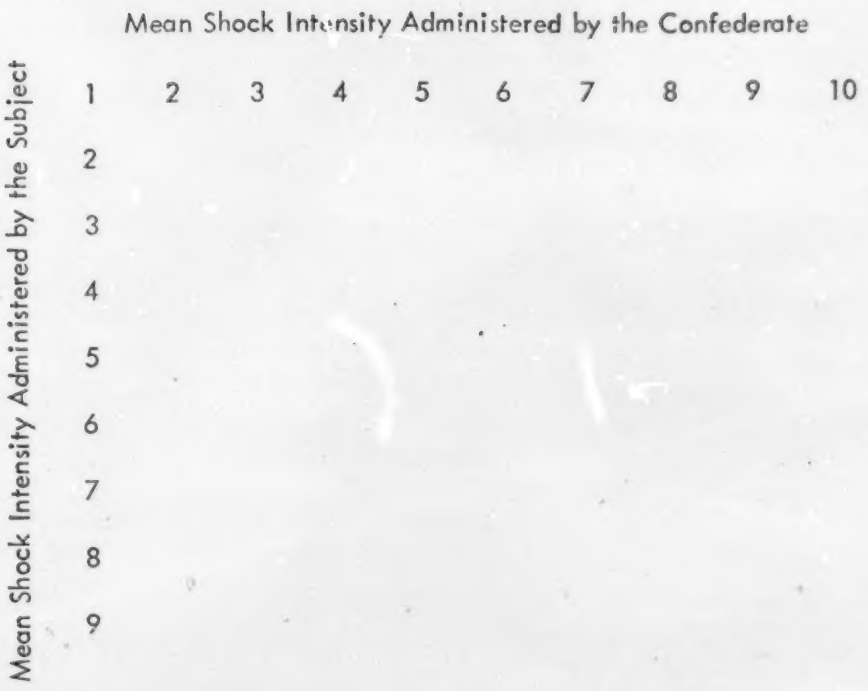

Figure 2. The confederate-subject social matrix in a typical aggression experiment (after Zillman, Katcher, and Milvavsky, 1972)

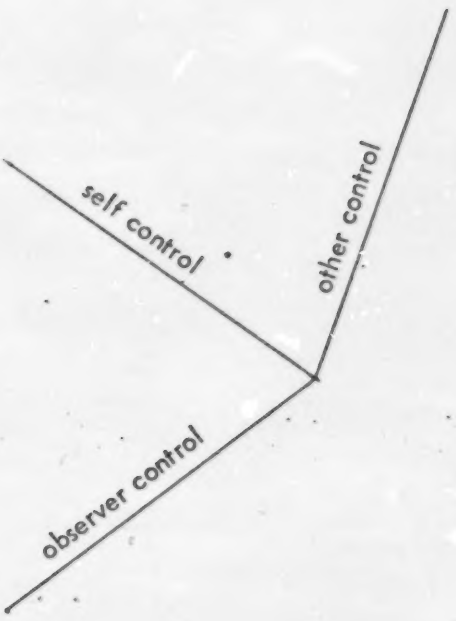

Figure 3. Geometric representation of the Social Control model for social motivation

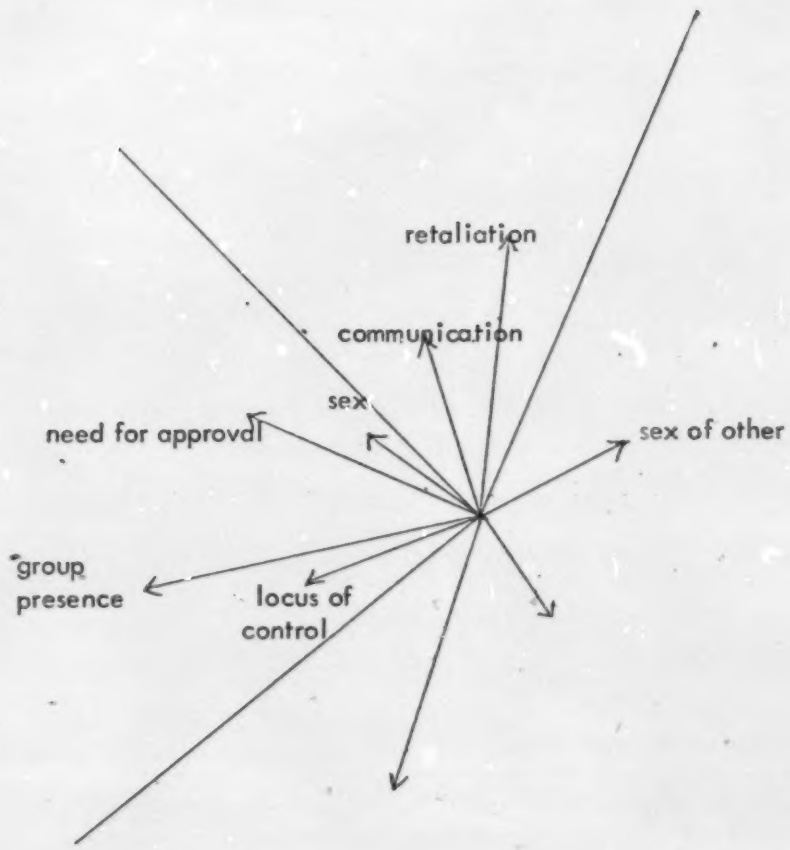

Figure 4. Hypothetical factor structure for the Social Control model with variables represented

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